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CLAIMS

What is claimed is:

- 05 1. A CD4-specific chimeric immunoglobulin comprising an antigen binding region of non-human origin and a constant region of human origin.
2. A chimeric immunoglobulin of Claim 1, wherein the antigen binding region is derived from a murine anti-CD4 immunoglobulin.
- 10 3. A chimeric immunoglobulin of Claim 2, wherein the antigen binding region is derived from a monoclonal antibody.
4. An antigen binding fragment of a chimeric immunoglobulin of Claim 1.
- 15 5. A chimeric immunoglobulin comprising:
  - 20 a. at least one chimeric heavy chain comprising an antigen binding region derived from the heavy chain of a non-human immunoglobulin specific for CD4 receptor linked to at least a portion of a human heavy chain constant region, the heavy chain being in association with:
  - 25 b. at least one chimeric light chain comprising an antigen binding region derived from a light chain of the non-human immunoglobulin linked to at least a portion of a human light chain constant region.

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6. A chimeric immunoglobulin of Claim 5, wherein the antigen binding region is derived from a murine antibody.
- 05 7. A chimeric immunoglobulin fragment Fab, Fab' or F(ab')<sub>2</sub> comprising a murine variable region specific for the CD4 receptor complex and a human constant region.
- 10 8. A chimeric immunoglobulin fragment of Claim 7, wherein the variable region is derived from the monoclonal antibody MT412.
- 15 9. A fused gene encoding a chimeric light or heavy chain immunoglobulin comprising:
  - a. a first DNA sequence encoding an immunoglobulin variable region of a CD4 specific antibody of non-human origin linked to:
  - b. a second DNA sequence encoding a constant region of an immunoglobulin of human origin.
- 20 10. A fused gene of Claim 9, wherein the variable region of the immunoglobulin chain is of murine origin.
11. A fused gene of Claim 10, wherein the variable region is derived from the monoclonal antibody MT412.
- 25 12. An expression vector containing the fused gene of Claim 9 in expressible form.

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13. A method of therapy for an autoimmune disorder, comprising administering to a patient therapeutic amounts of a chimeric immunoglobulin or immunoglobulin fragment comprising an antigen binding region of non-human origin specific for CD4 and a human constant region.
14. A method of Claim 13, wherein the antigen-binding region is derived from murine anti-CD4 immunoglobulin.
15. A method of Claim 13, wherein the murine anti-CD4 immunoglobulin is monoclonal antibody MT412.